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EXAMINER	
PEREZ GUTIERREZ, RAFAEL	
ART UNIT	**PAPER NUMBER**
2686	

DATE MAILED: 02/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/643,647	Dimeo et al.	
	Examiner	Art Unit	
	Rafael Perez-Gutierrez	2686	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *29 October 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2,4,5,7-9,12,14-16 and 18-25* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2,4,5,7-9,12,14-16 and 18-25* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *22 August 2000* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office Action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on October 29, 2004 has been entered. **Claims 1, 2, 4, 5, 7-9, 12, 14-16, and 18-25** are now pending in the present application.

Drawings

2. New formal drawings are required in this application. See the Notice of Draftsperson's Patent Drawing Review for appropriate corrections attached to the Office Action mailed on August 27, 2003.

3. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office Action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended". If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must

be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the Examiner, the Applicant will be notified and informed of any required corrective action in the next Office Action. If a response to the present Office Action fails to include proper drawing corrections, corrected drawings or arguments therefor, the response can be held **NON-RESPONSIVE** and/or the application could be **ABANDONED** since the objections/corrections to the drawings are no longer held in abeyance.

Claim Objections

4. **Claims 5, 12, 15, 18, 24, and 25** are objected to because of the following informalities:

a) On **line 2** of **claims 5 and 12**, insert --,-- after "switching";

b) On **line 2** of **claim 5**, insert --,-- after "band";

c) On **line 3** of **claim 12**, insert --,-- after "receiver";

d) On **line 4** of **claims 15 and 25**, replace "changes" with --for changing-- after "circuitry";

e) On **line 2** of **claim 18** and on **line 7** of **claim 25**, replace "receives" with --for receiving-- after "path";

f) On **line 2** of **claim 18**, insert --and-- after "path";

g) On **line 3** of **claim 18** and on **line 11** of **claim 25**, replace "receives" with --for receiving-- after "circuitry";

h) On **line 3** of **claim 18** and on **line 12** of **claim 25**, replace "produces" with --for producing-- after "and";

i) On **line 4** of **claim 18**, replace "and" with --wherein-- after "and;";

j) On **line 5** of **claim 24**, insert --a-- after "at";

k) On **line 5** of **claim 25**, replace "of operation" with --of operation--; and

l) On **line 9** of **claim 25**, replace "divides" with --for dividing-- after "divider".

Appropriate correction is required.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the Applicant regards as his invention.

Claims 4 and 5 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention.

Claims 4 and 5 recite the limitation "said adjacent band" in **lines 6 and 2**, respectively. There is insufficient antecedent basis for this limitation in the claims. Previous reference to an adjacent band is missing in either **claims 1, 2, 4, and 5**. For purpose of applying prior art, "said

adjacent band" is being interpreted as --an adjacent band--.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office Action:

> A person shall be entitled to a patent unless -- (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the Applicant for a patent.

Claims 1, 5, 7, 9, 12, 14, 15, 19-22, 24, and 25 are rejected under 35 U.S.C. 102(a) as being anticipated by **Sugimoto (JP 2000-078039)**, newly cited.

Consider **claim 1**, Sugimoto clearly shows and discloses a method of using at least one filter 6, 7 (figure 1) to receive signals from an antenna (not shown but inherently connected to input terminal 1) (figure 1) by changing filtering characteristics (i.e., by switching between filters 6, 7), said method comprising:

changing filtering characteristics on a main signal path (i.e., path that includes filters 6, 7, switch 8, and intermediate frequency (IF) amplifier 9) as a function of at least one amplitude on another signal path (i.e., path that includes distributor 10, filters 11, 12, detectors 13, 14, comparators 15, 16, and OR element 18) coupled to the main signal path (i.e., through distributor 5) where the main signal path and the other signal path have a frequency band of operation (abstract and paragraph 0001 and 0011) and where said amplitude includes an upper edge amplitude (as detected by detector 13) and a lower edge amplitude (as detected by detector 14) relative to the frequency band of operation (abstract, figure 1, and paragraphs 0011-0029).

Consider **claim 5**, and **as applied to claim 1 above**, Sugimoto further shows and discloses wherein said changing comprises switching, as a function of said at least one amplitude for an adjacent band, between a plurality of filters 6, 7 having different filtering characteristics (i.e., narrowband or broadband passband) (abstract, figure 1, and paragraphs 0015-0020).

Consider **claim 7**, and **as applied to claim 1 above**, Sugimoto also shows and discloses wherein said changing comprises narrowing a bandwidth for a filter (i.e., by selecting filter 7) on said main signal path to attenuate signals on at least one band edge of said frequency band of operation (paragraphs 0015-0028).

Consider **claim 8**, Sugimoto clearly shows and discloses a method of receiving signals, said method comprising:

changing filtering characteristics (i.e., by switching between filters 6, 7) on a main signal path (i.e., path that includes filters 6, 7, switch 8, and intermediate frequency (IF) amplifier 9) as a function of at least one band edge of a frequency band of operation of a receiver depending on at least one amplitude for signals not under the control of said receiver (e.g., adjacent channel signals) where the at least one amplitude includes an upper edge amplitude (as detected by detector 13) and a lower edge amplitude (as detected by detector 14) relative to the frequency band of operation (abstract, figure 1, and paragraphs 0011-0029).

Consider **claim 12**, and **as applied to claim 8 above**, Sugimoto further shows and discloses wherein said changing comprises switching, as a function of said at least one amplitude for said signals not under the control of said receiver (e.g., adjacent channel signals), between a plurality of filters 6, 7 having different filtering characteristics (i.e., narrowband or broadband

passband) (abstract, figure 1, and paragraphs 0015-0020).

Consider **claim 14**, and **as applied to claim 8 above**, Sugimoto also shows and discloses wherein said changing comprises narrowing a bandwidth for a filter (i.e., by selecting filter 7) on said main signal path to attenuate signals on at least one band edge of said frequency band of operation (paragraphs 0015-0028).

Consider **claim 15**, Sugimoto clearly shows and discloses a band edge amplitude reduction system for a receiver (abstract) comprising:

a variable filter (i.e., filters 6, 7) on a main signal path (i.e., path that includes filters 6, 7, switch 8, and intermediate frequency (IF) amplifier 9) having a frequency band of operation (abstract, figure 1, and paragraphs 0001 and 0011), and

an adjacent channel signal detector 20 (processing circuitry) for changing filtering characteristics of said variable filter (i.e., by switching between filters 6, 7) as a function of at least one amplitude for a frequency band adjacent to the frequency band of operation or as a function of signals not under the control of said receiver (e.g., adjacent channel signals) or both, where the at least one amplitude includes an upper edge amplitude (as detected by detector 13) and a lower edge amplitude (as detected by detector 14) relative to the frequency band of operation (abstract, figure 1, and paragraphs 0011-0029).

Consider **claim 19**, and **as applied to claim 15 above**, Sugimoto further shows and discloses wherein said adjacent channel signal detector 20 (processing circuitry) produces control signals to change said filtering characteristics by switching between a plurality of filters 6, 7 having different filtering characteristics (i.e., narrowband or broadband passband) as a

function of said at least one amplitude for said adjacent band or said signals not under the control of said receiver (e.g., adjacent channel signals), (abstract, figure 1, and paragraphs 0015-0020).

Consider **claim 20**, and **as applied to claim 15 above**, Sugimoto also shows and discloses wherein said adjacent channel signal detector 20 (processing circuitry) produces control signals to narrow a bandwidth for said filter (i.e., by selecting filter 7) on said main signal path to attenuate signals on at least one band edge of said frequency band of operation (paragraphs 0015-0028).

Consider **claim 21**, Sugimoto clearly shows and discloses a method of using at least one filter 6, 7 (figure 1) to receive signals from an antenna (not shown but inherently connected to input terminal 1) (figure 1) by changing filtering characteristics (i.e., by switching between filters 6, 7), said method comprising:

changing filtering characteristics on a main signal path (i.e., path that includes filters 6, 7, switch 8, and intermediate frequency (IF) amplifier 9) as a function of at least one amplitude on another signal path (i.e., path that includes distributor 10, filters 11, 12, detectors 13, 14, comparators 15, 16, and OR element 18) coupled to the main signal path (i.e., through distributor 5) where the main signal path and the other signal path have a frequency band of operation (abstract and paragraph 0001 and 0011) and where said amplitude is in an adjacent band relative to the frequency band of operation (abstract, figure 1, and paragraph 0011);

receiving, through input terminal 1, analog signal on said main signal path (figure 1 and paragraphs 0011-0014);

producing, via distributor 5, a replica of said analog signals on another signal path

where the other signal path is a band edge detection path (abstract, figure 1, and paragraphs 0011-0013);

dividing, via distributor 20, said analog signals on said band edge detection path onto an upper edge detection path (i.e., path including upper filter 11, first detector 13, and first comparator 15) and a lower edge detection path (i.e., path including lower filter 12, second detector 14, and second comparator 16) (figure 1 and paragraphs 0015-0020); and

producing an upper edge amplitude, via detector 13, for said analog signals at an upper edge relative to said frequency band of operation on said upper edge detection path and a lower edge amplitude, via detector 14, for said analog signals at a lower edge relative to said frequency band of operation on said lower edge detection path (abstract, figure 1, and paragraphs 0015-0028).

Consider **claim 22**, Sugimoto clearly shows and discloses a method of receiving signals, said method comprising:

changing filtering characteristics (i.e., by switching between filters 6, 7) on a main signal path (i.e., path that includes filters 6, 7, switch 8, and intermediate frequency (IF) amplifier 9) as a function of at least one band edge of a frequency band of operation of a receiver depending on at least one amplitude for signals not under the control of said receiver (e.g., adjacent channel signals) (abstract, figure 1, and paragraph 0011);

receiving, through input terminal 1, analog signal on said main signal path (figure 1 and paragraphs 0011-0014);

producing, via distributor 5, a replica of said analog signals on another signal path

where the other signal path is a band edge detection path (abstract, figure 1, and paragraphs 0011-0013);

dividing, via distributor 20, said analog signals on said band edge detection path onto an upper edge detection path (i.e., path including upper filter 11, first detector 13, and first comparator 15) and a lower edge detection path (i.e., path including lower filter 12, second detector 14, and second comparator 16) (figure 1 and paragraphs 0015-0020); and

producing an upper edge amplitude, via detector 13, for said analog signals at an upper edge relative to said frequency band of operation on said upper edge detection path and a lower edge amplitude, via detector 14, for said analog signals at a lower edge relative to said frequency band of operation on said lower edge detection path (abstract, figure 1, and paragraphs 0015-0028).

Consider **claim 24**, Sugimoto clearly shows and discloses a method of receiving signals, said method comprising:

changing filtering characteristics (i.e., by switching between filters 6, 7) on a main signal path (i.e., path that includes filters 6, 7, switch 8, and intermediate frequency (IF) amplifier 9) as a function of at least one band edge of a frequency band of operation of a receiver depending on at least one amplitude for signals not under the control of said receiver (e.g., adjacent channel signals) (abstract, figure 1, and paragraph 0011);

receiving, through input terminal 1, analog signal at a radio frequency on said main signal path (figure 1 and paragraphs 0011-0014);

producing, via distributor 5, a replica of said analog signals on a band edge detection path

(abstract, figure 1, and paragraphs 0011-0013);

dividing, via distributor 20, said analog signals on said band edge detection path onto an upper edge detection path (i.e., path including upper filter 11, first detector 13, and first comparator 15) and a lower edge detection path (i.e., path including lower filter 12, second detector 14, and second comparator 16) (figure 1 and paragraphs 0015-0020); and

producing an upper edge amplitude, via detector 13, for said analog signals at an upper edge relative to said frequency band of operation on said upper edge detection path and a lower edge amplitude, via detector 14, for said analog signals at a lower edge relative to said frequency band of operation on said lower edge detection path (abstract, figure 1, and paragraphs 0015-0028).

Consider **claim 25**, Sugimoto clearly shows and discloses a band edge amplitude reduction system for a receiver (abstract) comprising:

a variable filter (i.e., filters 6, 7) on a main signal path (i.e., path that includes filters 6, 7, switch 8, and intermediate frequency (IF) amplifier 9) having a frequency band of operation (abstract, figure 1, and paragraphs 0001 and 0011), and

an adjacent channel signal detector 20 (processing circuitry) for changing filtering characteristics of said variable filter (i.e., by switching between filters 6, 7) as a function of at least one amplitude for a frequency band adjacent to the frequency band of operation or as a function of signals not under the control of said receiver (e.g., adjacent channel signals) or both (abstract, figure 1, and paragraph 0011);

a band edge detection path (i.e., path that includes distributor 10, filters 11, 12, detectors

13, 14, comparators 15, 16, and OR element 18) for receiving a replica of analog signals on said main signal path (abstract, figure 1, and paragraphs 0011-0013);

a distributor 20 (signal divider) for dividing said analog signals on said band edge detection path onto an upper edge detection path (i.e., path including upper filter 11, first detector 13, and first comparator 15) and a lower edge detection path (i.e., path including lower filter 12, second detector 14, and second comparator 16) (figure 1 and paragraphs 0015-0020); and

detectors 13, 14 (detection circuitry) for receiving said signals on said upper edge detection path and said lower edge detection path and producing an upper edge amplitude for said analog signals at an upper edge relative to said frequency band of operation and a lower edge amplitude for said analog signals at a lower edge relative to said frequency band of operation (abstract, figure 1, and paragraphs 0015-0028).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office Action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the Examiner presumes that the subject matter of the various

claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the Examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

8. **Claims 1, 2, 4, 8, 9, 15, 16, 18, and 23** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Vogt et al. (U.S. Patent # 5,339,455)**, of record, in view of **Sugimoto (JP 2000-078039)**, newly cited.

Consider **claim 1**, Vogt et al. clearly show and disclose a method of using at least one filter 14_1-14_N (figure) to receive signals from an antenna 1 by changing filtering characteristics (i.e., adjusting the bandwidth) (abstract and figure), said method comprising:

changing, by means of comparison and control means 13 (processing circuitry) (figure), filtering characteristics (i.e., adjusting the bandwidth) of a variable filter 14_1-14_N on a main signal path (i.e., the path of selector S_1, filters 14_1-14_N, and selector S_2) as a function of at least

one amplitude (level, signal strength) on another signal path (i.e., the path of first level evaluation or threshold circuit 11 and comparison and control means 13) coupled to the main signal path (i.e., the path of selector S_1, filters 14_1-14_N, and selector S_2) where the main signal path (i.e., the path of selector S_1, filters 14_1-14_N, and selector S_2) and the other signal path (i.e., the path of first level evaluation or threshold circuit 11 and comparison and control means 13) have a frequency band of operation and where said amplitude (level, signal strength) is in an adjacent band relative to the frequency band of operation (i.e., amplitude (level, signal strength) measured is from an adjacent channel (signals not under the control of the receiver)) (abstract, figure, column 1 lines 19-24 and 53-65, column 2 lines 10-17, column 2 line 25 - column 3 line 47, and claim 1).

However, Vogt et al. do not specifically disclose that said amplitude includes an upper edge amplitude and a lower edge amplitude.

In the same field of endeavor, Sugimoto clearly shows and discloses a method of using at least one filter 6, 7 (figure 1) to receive signals from an antenna (not shown but inherently connected to input terminal 1) (figure 1) by changing filtering characteristics (i.e., by switching between filters 6, 7), said method comprising, among other steps, the step of changing filtering characteristics on a main signal path (i.e., path that includes filters 6, 7, switch 8, and intermediate frequency (IF) amplifier 9) as a function of at least one amplitude on another signal path (i.e., path that includes distributor 10, filters 11, 12, detectors 13, 14, comparators 15, 16, and OR element 18) coupled to the main signal path (i.e., through distributor 5) where said amplitude includes an upper edge amplitude (as detected by detector 13) and a lower edge

amplitude (as detected by detector 14) relative to the frequency band of operation (abstract, figure 1, and paragraphs 0011-0029).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to include an upper edge and a lower edge amplitude when changing the filtering characteristics as taught by Sugimoto in the method taught by Vogt et al. for the purpose of enhancing the filtering process.

Consider **claim 2**, Vogt et al., as modified by Sugimoto, clearly show and disclose the claimed invention **as applied to claim 1 above**, and, in addition, Vogt et al. further show and disclose that the filtering characteristics (i.e., bandwidth) on said main signal path (i.e., the path of selector S_1, filters 14_1-14_N, and selector S_2) can be changed by using an amplitude (level, signal strength) in said frequency band of operation on said main signal path (i.e., the path of selector S_1, filters 14_1-14_N, and selector S_2) (abstract, figure, and column 2 lines 49-67).

Consider **claim 4**, Vogt et al., as modified by Sugimoto, clearly show and disclose the claimed invention **as applied to claim 2 above**, and, in addition, Vogt et al. also show and disclose:

providing a replica of said signals on a detection path (path of selector S_2, second level evaluation or threshold circuit 12, and comparison and control means 13) (figure, column 2 line 49 - column 3 line 5, and column 3 lines 19-35);

producing, by means of second level evaluation or threshold circuit 12 (detection circuitry), an amplitude (level, signal strength) for said signals in said frequency band of operation on said detection path (path of selector S_2, second level evaluation or threshold circuit

12, and comparison and control means 13) (column 2 line 49 - column 3 line 35); and

changing, by means of comparison and control means 13 (processing circuitry) (figure), said filtering characteristics (i.e., adjusting the bandwidth) on said main signal path (i.e., the path of selector S_1, filters 14_1-14_N, and selector S_2) based on a comparison between said at least one amplitude (level, signal strength) for said adjacent band (adjacent channel) and said amplitude (level, signal strength) for said frequency band of operation (figure and column 3 lines 1-40).

Consider **claim 8**, Vogt et al. clearly show and disclose a method of receiving signals, said method comprising:

changing, by means of comparison and control means 13 (processing circuitry) (figure), filtering characteristics (i.e., adjusting the bandwidth) of a variable filter 14_1-14_N on a main signal path (i.e., the path of selector S_1, filters 14_1-14_N, and selector S_2) as a function of at least one amplitude (level, signal strength) on another signal path (i.e., the path of first level evaluation or threshold circuit 11 and comparison and control means 13), where said amplitude (level, signal strength) is in an adjacent band relative to the frequency band of operation (i.e., amplitude (level, signal strength) measured is from an adjacent channel (band edge; signals not under the control of the receiver)) (abstract, figure, column 1 lines 19-24 and 53-65, column 2 lines 10-17, column 2 line 25 - column 3 line 47, and claim 1).

However, Vogt et al. do not specifically disclose that said amplitude includes an upper edge amplitude and a lower edge amplitude.

In the same field of endeavor, Sugimoto clearly shows and discloses a method of receiving signals, said method comprising:

changing filtering characteristics (i.e., by switching between filters 6, 7) on a main signal path (i.e., path that includes filters 6, 7, switch 8, and intermediate frequency (IF) amplifier 9) depending on at least one amplitude for signals not under the control of said receiver (e.g., adjacent channel signals) where the at least one amplitude includes an upper edge amplitude (as detected by detector 13) and a lower edge amplitude (as detected by detector 14) relative to a frequency band of operation (abstract, figure 1, and paragraphs 0011-0029).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to include an upper edge and a lower edge amplitude when changing the filtering characteristics as taught by Sugimoto in the method taught by Vogt et al. for the purpose of enhancing the filtering process.

Consider **claim 9**, Vogt et al., as modified by Sugimoto, clearly show and disclose the claimed invention **as applied to claim 8 above**, and, in addition, Vogt et al. further show and disclose that the filtering characteristics (i.e., bandwidth) on said main signal path (i.e., the path of selector S_1, filters 14_1-14_N, and selector S_2) can be changed by using an amplitude (level, signal strength) in said frequency band of operation on said main signal path (i.e., the path of selector S_1, filters 14_1-14_N, and selector S_2) (abstract, figure, and column 2 lines 49-67).

Consider **claim 15**, Vogt et al. clearly show and disclose a band edge amplitude reduction system for a radio receiver comprising:

a variable filter 14_1-14_N on a main signal path (i.e., the path of selector S_1, filters 14_1-14_N, and selector S_2) having a frequency band of operation (abstract, figure, and column 2 line 25 - column 3 line 47); and

comparison and control means 13 (processing circuitry) (figure) for changing filtering characteristics (i.e., adjusting the bandwidth) of said variable filter 14_1-14_N as a function of at least one amplitude (level, signal strength) on another signal path (i.e., the path of first level evaluation or threshold circuit 11 and comparison and control means 13), where said amplitude (level, signal strength) is in an adjacent band relative to the frequency band of operation (i.e., amplitude (level, signal strength) measured is from an adjacent channel (signals not under the control of the receiver)) (abstract, figure, column 1 lines 19-24 and 53-65, column 2 lines 10-17, column 2 line 25 - column 3 line 47, and claim 1).

In the same field of endeavor, Sugimoto clearly shows and discloses a band edge amplitude reduction system for a receiver (abstract) comprising, among other components, an adjacent channel signal detector 20 (processing circuitry) for changing filtering characteristics of a variable filter (i.e., by switching between filters 6, 7) as a function of at least one amplitude for a frequency band adjacent to the frequency band of operation, where the at least one amplitude includes an upper edge amplitude (as detected by detector 13) and a lower edge amplitude (as detected by detector 14) relative to the frequency band of operation (abstract, figure 1, and paragraphs 0011-0029).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to include an upper edge and a lower edge amplitude when changing the filtering characteristics as taught by Sugimoto in the system taught by Vogt et al. for the purpose of enhancing the filtering process.

Consider **claim 16**, Vogt et al., as modified by Sugimoto, clearly show and disclose the

claimed invention **as applied to claim 15 above**, and, in addition, Vogt et al. further show and disclose that said comparison and control means 13 (processing circuitry) (figure) changes said variable filter 14_1-14_N characteristics (i.e., bandwidth) on said main signal path (i.e., the path of selector S_1, filters 14_1-14_N, and selector S_2) as a function of at least one amplitude (level, signal strength) for said adjacent band (adjacent channel) and an amplitude (level, signal strength) for said frequency band of operation on said main signal path (i.e., the path of selector S_1, filters 14_1-14_N, and selector S_2) (abstract, figure, column 2 lines 49-67, and column 3 lines 1-40).

Consider **claim 18**, Vogt et al., as modified by Sugimoto, clearly show and disclose the claimed invention **as applied to claim 16 above**, and, in addition, Vogt et al. also show and disclose:

a detection path (path of selector S_2, second level evaluation or threshold circuit 12, and comparison and control means 13) for receiving a replica of said signals from said main signal path (i.e., the path of selector S_1, filters 14_1-14_N, and selector S_2) (column 2 line 49 - column 3 line 5 and column 3 lines 19-35); and

a second level evaluation or threshold circuit 12 (detection circuitry) for receiving said signals from said detection path (path of selector S_2, second level evaluation or threshold circuit 12, and comparison and control means 13) and producing an amplitude (level, signal strength) for said signals in said frequency band of operation on said detection path (path of selector S_2, second level evaluation or threshold circuit 12, and comparison and control means 13) (column 2 line 49 - column 3 line 35); wherein

said means of comparison and control means 13 (processing circuitry) (figure) changes

said filtering characteristics (i.e., adjusting the bandwidth) of said filter 14_1-14_N on said main signal path (i.e., the path of selector S_1, filters 14_1-14_N, and selector S_2) based on a comparison between said at least one amplitude (level, signal strength) for said adjacent band (adjacent channel) and said amplitude (level, signal strength) for said frequency band of operation (figure and column 3 lines 1-40).

Consider **claim 23**, Vogt et al. clearly show and disclose a method of receiving signals, said method comprising:

changing, by means of comparison and control means 13 (processing circuitry) (figure), filtering characteristics (i.e., adjusting the bandwidth) of a variable filter 14_1-14_N on a main signal path (i.e., the path of selector S_1, filters 14_1-14_N, and selector S_2) as a function of at least one amplitude (level, signal strength) on another signal path (i.e., the path of first level evaluation or threshold circuit 11 and comparison and control means 13), where said amplitude (level, signal strength) is in an adjacent band relative to the frequency band of operation (i.e., amplitude (level, signal strength) measured is from an adjacent channel (band edge; signals not under the control of the receiver)) (abstract, figure, column 1 lines 19-24 and 53-65, column 2 lines 10-17, column 2 line 25 - column 3 line 47, and claim 1);

receiving analog signal on said main signal path (i.e., the path of selector S_1, filters 14_1-14_N, and selector S_2) (column 2 lines 25-40);

producing a replica of said analog signals on the other signal path (i.e., the path of first level evaluation or threshold circuit 11 and comparison and control means 13), where the other signal path is a band edge detection path (i.e., amplitude (level, signal strength) measured is from

an adjacent channel (band edge; signals not under the control of the receiver)) (abstract, figure, column 1 lines 19-24 and 53-65, column 2 lines 10-17, and column 2 line 25 - column 3 line 47);

providing a replica of said analog signals on a detection path (path of selector S_2, second level evaluation or threshold circuit 12, and comparison and control means 13) (figure, column 2 line 49 - column 3 line 5, and column 3 lines 19-35);

producing, by means of second level evaluation or threshold circuit 12 (detection circuitry), an amplitude (level, signal strength) for said analog signals in said frequency band of operation on said detection path (path of selector S_2, second level evaluation or threshold circuit 12, and comparison and control means 13) (column 2 line 49 - column 3 line 35); and

changing, by means of comparison and control means 13 (processing circuitry) (figure), said filtering characteristics (i.e., adjusting the bandwidth) on said main signal path (i.e., the path of selector S_1, filters 14_1-14_N, and selector S_2) based on a comparison between said at least one amplitude (level, signal strength) for said adjacent band (adjacent channel) (i.e., signals not under the control of the receiver) and said amplitude (level, signal strength) for said frequency band of operation (figure and column 3 lines 1-40).

However, Vogt et al. do not specifically disclose the steps of dividing said analog signals on said band edge detection path onto an upper edge detection path and a lower edge detection path and producing an upper edge amplitude for said analog signals at an upper edge relative to said frequency band of operation on said upper edge detection path and a lower edge amplitude for said analog signals at a lower edge relative to said frequency band of operation on said lower edge detection path.

In the same field of endeavor, Sugimoto clearly shows and discloses a method of receiving analog signals, said method comprising:

changing filtering characteristics (i.e., by switching between filters 6, 7) on a main signal path (i.e., path that includes filters 6, 7, switch 8, and intermediate frequency (IF) amplifier 9) as a function of at least one band edge of a frequency band of operation of a receiver depending on at least one amplitude for signals not under the control of said receiver (e.g., adjacent channel signals) (abstract, figure 1, and paragraph 0011);

producing, via distributor 5, a replica of said analog signals on another signal path where the other signal path is a band edge detection path (abstract, figure 1, and paragraphs 0011-0013);

dividing, via distributor 20, said analog signals on said band edge detection path onto an upper edge detection path (i.e., path including upper filter 11, first detector 13, and first comparator 15) and a lower edge detection path (i.e., path including lower filter 12, second detector 14, and second comparator 16) (figure 1 and paragraphs 0015-0020); and

producing an upper edge amplitude, via detector 13, for said analog signals at an upper edge relative to said frequency band of operation on said upper edge detection path and a lower edge amplitude, via detector 14, for said analog signals at a lower edge relative to said frequency band of operation on said lower edge detection path (abstract, figure 1, and paragraphs 0015-0028).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to divide the signals into an upper edge and a lower edge detection path

and produce an upper edge and a lower edge amplitude when changing the filtering characteristics as taught by Sugimoto in the method taught by Vogt et al. for the purpose of enhancing the filtering process.

Response to Arguments

9. Applicant's arguments with respect to **claims 1, 2, 4, 5, 7-9, 12, 14-16, 17, and 18-25** have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

10. Any response to this Office Action should be **faxed to** (703) 872-9306 **or mailed to**:

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Hand-delivered responses should be brought to

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Randolph Building
401 Dulany Street
Alexandria, VA 22314

11. Any inquiry concerning this communication or earlier communications from the

Examiner should be directed to Rafael Perez-Gutierrez whose telephone number is (703) 308-8996. The Examiner can normally be reached on Monday-Thursday from 6:30am to 5:00pm.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Marsha D. Banks-Harold can be reached on (703) 305-4379. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700 or call customer service at (703) 306-0377.

Rafael Perez-Gutierrez
R.P.G./rpg **RAFAEL PEREZ-GUTIERREZ**
PATENT EXAMINER
February 14, 2005